IN THE CROSS-REFERENCES TO RELATED APPLICATIONS

Please amend paragraph [0001] as follows:

[0001] This application is related to U.S. Patent Application No. [_______,] 10/039,922 entitled "Block Switching in Ultrasound Imaging," filed on October [18, 2001.] 20, 2001. The subject matter of [the] this related ~~applications~~ application is ~~hereby~~ incorporated herein by reference. The related ~~applications are~~ application is commonly owned and assigned.

IN THE SUMMARY OF THE INVENTION

Please delete paragraph [0019].

IN THE DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Please amend paragraph [0021] as follows:

[0021] After conversion to electrical signals, pulses are coupled to multi-channel transmit/receive switch 120 from distinct data channels 133. Transmit/receive switch 120 directs the electrical signals to a multi-channel analog amplifier 135. Analog amplifier 135 amplifies the signals and couples them to a mixer 140 for demodulation. Mixer 140 can be an analog mixer, a multi-channel mixer, a phase modulator, a time signal multiplier and/or any other signal modulator known in the art. The demodulated signals are made up of in-phase and ~~quardrature~~ quadrature (I/Q) components. Each distinct data channel 133 is independently coupled through a filter 142.

Please amend paragraph **[0028]** as follows:

[0028] In [an] pulse propagation step 225, ultrasound pulses 127 propagate through media of interest 130. Variations in media of interest 130 cause echoes to be generated and ultrasound pulses 127 to be altered. In an echo receiving step 230, returning ultrasound signals are received by ultrasound transducer 125 using transducer elements 128. Transducer elements 128 receive the returning ultrasound signals at the frequency near or at the frequencies of ultrasound pulses 127 and/or at harmonics thereof. Each receiver generates signals in at least one of distinct data channel 133 and the signals of each distinct data channel 133 are coupled through transmit/receive switch 120 to analog amplifier 135. From echo receiving step 230 through a post-processing step 275 all operations are optionally performed on distinct data sets, such as set distinguished by different analysis modes, in parallel.

Please amend paragraph **[0031]** as follows:

[0031] In a data preprocessing step 260, preprocessing module 160 reads data from I/Q data buffer 150 and processes it using one or more of frequency band preprocessors 162A-Z. Each frequency band preprocessor 162A-Z can access all of the data available in I/Q data buffer 150. However, depending on the type of imaging mode desired, each frequency band preprocessor 162A-Z can also be operated to ~~processes~~ process only a segment of the data. In various aspects of the invention, these segments are divided by transducer channel, frequency range, or encoding. In various embodiments, frequency band preprocessors 162A-Z apply a variety of processing routines to the data. In an illustrative example, half of the frequency band preprocessors 162A-Z are configured to process data associated with Doppler signals while the other half are configured to process signals associated with static structures. Thus, in these embodiments, preprocessing module 160 processes the data stored in I/Q data buffer 150 in multiple modes, in multiple frequency bands, with multiple encodings, and/or in multiple independent data channels. Since preprocessing module 160 consists of multiple independent frequency band preprocessors 162A-Z, processing can occur in parallel.

Please amend paragraph **[0038]** as follows:

[0038] The above process is optionally repeated for multiple transmit zones until an entire field of view is covered. For example, see co-pending U.S. Patent Application [__/_____] 10/039,922 entitled "Block Switching in Ultrasound Imaging[.]" that published on February 5, 2004 as U.S. Patent Publication No. US 2004-0024316 A1. The final images of multi-mode and/or multi-band signals are combined and scan-converted to an appropriate display format by image scan converter 190

Please amend paragraph **[0044]** as follows:

[0044] The various elements 510 through 590 introduced in FIG. 5 are optionally implemented using software. Thus, while preprocessor 162A includes multi-pulse averager 510, ~~Digital~~ digital mixer 520, and base-band filter 530 in one instance of an embodiment, in a subsequent instance of the same embodiment ~~preporcessor~~ preprocessor 162A may be reconfigured via software to include instead clutter filter 540 and base-band filter 550. Post-processor 182A is optionally configurable through software in [a] an analogous manner.

Please amend paragraph **[0049]** as follows:

[0049] In the method illustrated by FIG. 6B, preprocessing step 260 includes a clutter filtering step 660 and a base-band filtering step 670. In clutter filtering step 660, clutter filter 540 is applied to the same multiple signals collected for harmonic tissue imaging to remove signals resulting from stationary and slow-moving sources within the media of interest 130. In base-band filtering step 670, base-band filter 550 is used to extract the ~~cultter filterd~~ clutter filtered fundamental frequency component and remove any noise outside base-band. Preprocess data step 260 is followed by optional store data step 265 and area-forming step 270.